

```
1  ccgcataccta gccgccgact cacacaagggc aggtgggtga ggaaatccag agttgccatg
61 gagaaaaattc cagtgtcagc attcttgctc cttgtggccc tctcctacac tctggccaga
121 gataccacag tcaaacctgg agccaaaaag gacacaaagg actctcgacc caaactgccc
181 cagaccctct ccagaggttg gggtgaccaa ctcatctgga ctccagacata tgaagaagct
241 ctatataaat ccaagacaag caacaaaccc ttgatgatta ttcatacactt ggatgagtgc
301 ccacacagtc aagctttaaa gaaagtgttt gctgaaaata aagaaatcca gaaattggca
361 gagcagtttg tctcctcaa tctggtttat gaaacaactg acaaacacct ttctcctgat
421 ggccagtatg tcccaggat tatgtttgtt gacctatctc tgacagttag agccgatatc
481 actggaagat attcaaactg tctctatgct tacgaacctg cagatacagc tctgttgctt
541 gacaacatga agaaagctct caagttgctg aagactgaat tgtaaagaaa aaaaatctcc
601 aagcccttct gtctgtcagg ccttgagact tgaaaccaga agaagtgtga gaagactggc
661 tagtgtggaa gcatagtga cacttgattt aggttatggt ttaatgttac aacaactatt
721 ttttaagaaa aacaagtttt agaaatttgg tttcaagtgt acatgtgtga aaacaatatt
781 gtatactacc atagtgagcc atgattttct aaaaaaaaaa ataatgttt tgggggtgtt
841 ctgttttctc caacttggtc tttcacagtg gttcgtttac caaataggat taaacacaca
901 caaaatgctc aaggaaggga caagacaaaa ccaaaactag ttcaaagat gaagacaaa
961 gaccaagtta tcatctcacc acaccacagg ttctcactag atgactgtaa gtagacacga
1021 gcttaatcaa cagaagtatc aagccatgtg ctttagcata aaagaatatt tagaaaaaca
1081 tccaagaaa atcacatcac tacctagagt caactctggc caggaactct aaggtacaca
1141 ctttcattta gtaattaaat tttagtcaga ttttgcccaa cctaattgctc tcagggaaag
1201 cctctggcaa gtagctttct ccttcagagg tctaatttag tagaaaggtc atccaaagaa
1261 catctgcact cctgaacaca ccctgaagaa atcctgggaa ttgaccttgt aatcgatttg
1321 tctgtcaagg tcctaaagta ctggagtga ataaattcag ccaacatgtg actaattgga
1381 agaagagcaa agggtggtga cgtgttgatg aggcagatgg agatcagagg ttactagggt
1441 ttaggaaacy tgaaaggctg tggcatcagg gtaggggagc attctgccta acagaaatta
1501 gaattgtgtg ttaatgtctt cactctatac ttaatctcac attcattaat atatggaatt
1561 cctctactgc ccagcccctc ctgatttctt tggcccctgg actatggtgc tgtatataat
1621 gctttgcagt atctgttgct tgtcttgatt aacttttttg gataaaacct tttttgaaca
1681 gaaaaaaaaa aaaaaaaaaa a
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FIG. 1

1 MEKIPVSAFLLLVALSYTLARDTTVKPGAKKDTKDSRPKL
 41 PQTL SRGWGDQLIWTQTYYEALYKSKTSNKPLMIHHLDE
 81 CPHSQALKKKVFAENKEIQKLAEQFVLLNLVYETTDKHLSP
 121 DGQYVPRIMFVDP SLTVRADITGRYSNRLYAYEPADTALL
 161 LDNMKKALKLLKTEL

FIG. 2

1	ggcaaccctt	gcggtcacaca	caaagcagga	gggtgggaag	cccagatttg	ccatggagaa
61	atcttcagtg	tctgcaatcc	tgcttcttgt	ggccatttct	ggtaccttgg	ccaaagacac
121	cacagtcaaa	tctggagcca	aaaaggacct	aaaggactct	cggcccaaac	tacctcagac
181	actctccaga	ggttggggcg	atcagctcat	ctggactcag	acatacgaag	aagctttata
241	cagatccaag	acaagcaaca	gacccttgat	ggtcattcat	caottggacg	aatgcccaca
301	cagtcaagcc	ttaaagaaa	tgtttgctga	acataaaagaa	atccagaaat	tggcagagca
361	gtttgttctc	ctcaacctgg	tctatgaaac	aaccgacaag	cacctttctc	ctgatggcca
421	gtacgtcccc	agaatttgt	ttgtagacct	atccctgacg	gtgagggcag	acatcactgg
481	acgataactca	aaccggctct	acgcttatga	accttctgac	acagctttgt	tgtacgacaa
541	catgaagaaa	gctctcaagc	tgctaaagac	agaattgtag	agctaactgc	gcaccgggtc
601	aggagaccag	aaggcagaag	cactgtggac	ttgcagatta	cagtacagtt	taatgttaca
661	acagatatat	tttttaaaaca	cccacaggtg	gggaaacaat	attattatct	actacagtga
721	agcatgatatt	tctagaaaat	aaagtcttgt	gagaactcca	aaaaaaaaaa	aaaaaaaaaa

FIG. 3

MEKFSVSAILLLVAISGTLAKDTTVKSGAKKDPKDSRPKLPQTLSRGWGDQLIWTQTYEEALYRS
KTSNRPLMVIHHLDECPHSQALKKVFAEHKEIQKLAEQFVLNLNLYETTDKHLSPDGQYVPRIVF
VDPSLTVRADITGRYSNRLYAYEPSDTALLYDNMKKALKLLKTEL

FIG. 4

1	cggcaaccct	tgccggctcac	acaaagcagg	agggaggaga	gctcagattt	gccatggaga
61	aattttcagt	ctcggcaatc	ctgcttcttg	tggccatctc	tggtactctg	gccaaagaca
121	ccacagtcaa	atctggatcc	aaaaaggacc	caaaggactc	tcgaocccaa	ctaccccaga
181	ccctgtccag	aggttgggga	gatcagctca	tctggactca	gacttacgaa	gaagccttat
241	acaaatccaa	gacaagcaac	agacccttga	tggtcattca	tcacttggac	gaatgcccgc
301	acagtcaagc	tttaaagaaa	gtgtttgctg	aaaataagga	gatccagaaa	ttggcagagc
361	agtttgttct	cctcaacttg	atctatgaaa	caactgacaa	gcacctttct	cctgatggcc
421	agtacgtccc	cagaattgtg	tttgtggacc	cttccctgac	ggtgagggca	gacatcacccg
481	gaagatactc	aaaccgtctc	tacgcttacg	aaccttctga	cacagctctg	ctgcacgaca
541	acatgaagaa	agctctcaag	ttgctgaaga	cagagttgta	gagtcaactg	tacagtgcct
601	caggagccgg	gaaggcagaa	gcactgtgga	cctgccgatg	acattacagt	ttaatgttac
661	aacaaatgta	ttttttaaac	acccacgtgt	ggggaaacaa	tattattatc	tactacagac
721	acatgatttt	ctagaaaata	aagtcttgtg	agaactcc		

FIG. 5

MEKFSVSAILLLVAISGTLAKDTTVKSGSKKDPKDSRPKLPQTLSRGWGDQLIWTQTYEEALYKS
KTSNRPLMVIHHLDECPHSQALKKVFAENKEIQKLAEQFVLLNLIYETTDKHLSPDGQYVPRIVF
VDPSLTVRADITGRYSNRLYAYEPSDTALLHDNMKKALKLLKTEL

FIG. 6

1 AACCCCTAGTT ACCTCACACC AAGACAGATA TGCCAAAGAT TCCACAGCCT
51 CAATAGCATG TGTAGGATAT CTGCTAATAA TTACCTCCTC CTTGCCATCC
101 GTCAGCCACT ATGACAAACT CTGGGTTTTT CCTGACATGA GATTAGGCAC
151 ATGAGTATAG AATAATTATA TCACTATAAT TAACTGTAAC AAATCAAAGA
201 CTTTTTTTTT TAAGTTCCGG AGTATGTGTG TAGGATGTGC AGGTTTGTTC
251 CATCAGTAAA CGTGTGCCAT GGTGGTTTGC TGCACTGATC AACCCAACAA
301 CTAGGTCTTA AGCCAGCCTG CATTAGCTAC TTTTATCAAA TGTATATGGGC
351 TGAATTGTGT CCCCCCAA AATTCATATG TTGAAGTCTT AATCCCCAGG
401 ACTTCAGAAT AGGATCTTTA CAGAGGTAAT TAAGTTAAAG TAGGTCATTA
451 GGCAGGACCC AAATACAATA TGA CTGGTGT CCTTATAAGA AAAGGAAAAA
501 AATGACACAG ACAGGTACAG AGGGAAAAAC CATGTGGCAA TACAGGGAAA
551 AGTCATTTAA TATTCAAAT GGTCCCATAT GTTAATATTA TCCCATATT
601 ATAGATGGAG AAAGTGAAGT TTTGGGGATG TTAAATGAGA TCTCAGATCA
651 TCCTATGAGC AAGCACCAGG ATGCAGGATT CAGATGGGAA TCTCGTGA CT
701 CCAAATCCCA TCCACTTGTT ACTTTCAGTG GATAAGGGAC TGAAGGACTT
751 TGGTCCCAAC TCTGCCCTAA ACTAGTTGTG AGACCTTCAA AAAGTTATGA
801 ATTTTTTGCC ATCTTCATTT ATTCATCTGT AAAATGAAAG ACTGGAATTG
851 AATATTACAA GGGTCTATCT AAGGGCCTGC TAGTTTTAAG AATTTTGCTC
901 AAATCATCGT TTTCAAATC CTGAAGAAAT TACTTCTATA AATTCATTAG
951 AATTGAAAGG AAATTCAGTA TTTGGAGAAT CACGATTTTG CCACAGAAT
1001 TCAAGGATTT ATTGGAAAAA TATACATACT TGCAAATGTT TTTGAAATAT
1051 TATGACCTTA ACTCATTTTA AAAAGTCATT TATATAGGGC TTGCATCCCA
1101 TTCATTAACT TTCTGTTGTT AACATTTTCT TCATTCTGAG CTTTTAAAGA
1151 CTGCACACAA CTTTCATGAAC AAAATACAGG ATTAAAATTT TCTGACAGAA
1201 AATTTAAATT CCAGTTTTAA AATCTTCAGG GAGTAATTAA ATGGTCTTGA
1251 GGGGAAAAAA AACTTGGTTG CAGACCTTAG TTTTAGGTC TGAGAAAATG

1301 GAGTAAATGG CTCCTGCCTT GCGTGGCAGG AAAGTTTGCC TTAAATAAG
1351 AGATTATCTG TGAAATACCT TTGAACTCTG TGGAGGGAAG TTGCTGCATA
1401 CATTCAATGG CAAGGCATTT ATTACAAGCT CACGATATTA GGCTGTTTTT
1451 TTTTTTTTTT TTGCCAATAC TTCCTCAGTT TTGAAAAATT ACGTGGGTTA
1501 CTTGATTTGT ATTTTTTTTC ATACCTGTAG AAGTTAGGGT GCATTGTTTT
1551 GACAGGAGCA GGGAAGTATT GTAGAAAATA ATTTTATCA TAATGGAGTA
1601 TGGCAGGTTA TATGACTGCG AGGATCAGAA TTGTGAATCA TCTCTTGTGT
1651 GTCTTCAAGT AAATAAAGGC AATCTGCCCA CGGAGCAGAA AAAAAATCTA
1701 CAAACTACAA ACTCTGTCCA ATCATGTAAA GACAAATCAG CCTTCAGGCA
1751 AATCAAATGT CTCATTCAA AGTCTACCTG GATTTGGCAC TCTGCCCATC
1801 GTTTCAAAAC CTCTTAACAA TACGTTTCAC AAATAGTTAA AAACATGCAT
1851 ACTGAAAAGC ATACTTTTGC AATGTTATTT TTAAAAACAA GGAACCTCTT
1901 AACCCAGGGA AGATAATCAC TTGGGGAAAG GAAGGTTTCGT TTCTGAGTTA
1951 GCAACAAGTA AATGCAGCAC TGGTGGGTGG GATTGAGGTG TGCCCTGGTG
2001 CATAAATAGA GACTCAGCTG TGCTGGCACA CTCAGAAGCT TGGACCGCAT

FIG. 7

1 AAAGGTCTAG AAAGAAACCT TTAAATGAG TGAACCTTAC CATACTAGA
51 AATGCTGTGG GCTAGTGACT CTTGAAATAA CTCATTGTC TTATGCTTCT
101 AAAAGGTCTA CAGAGACCAT TTTTTTAAAA GATGATTGAT TAAAAAAAC
151 TGATTTGAGG TAAAAACCTT AACTAGAATT GCTCTCACAT ATCTAAATAT
201 CACTATTTAG CCTTTAGTTC TATTCAAACC ATTATTTTAC AGATTAGAAA
251 CACCAAACAA ACGATTAAGC AAACAAAAAT AGAACAGTCA ATAGTTTTCT
301 AAAGGCCCTA CAATTAGTTG AGGGCAGAGC TAGGAGGAAA GCCAGGGCTC
351 TTCTACTCCA CTATCTTAGG CATTGGGAAA TGGGTGGGAT TTCGGGTCAA
401 TTACAGTCAG CATCCTGCTT CCACACTCTG GATGATGATA TCAGAGGTGA
451 CACTGAACAC CCTGAAACTT TAGTTTCCAC GCCTGTAACA GAGTTCCATG
501 CAACAGTTCA GAGCGACATA GTCGTGAACA TAGAGTGAAC TGAGGAAGAG
551 GAAGAGGCTT GGGATGAACG TAGGGTCCCT GCTTCCACAG GAACAGGACA
601 GCCTGGGAGG CTGAAGCATC GCGATTAC CTTGCTCAA TCCTGGAGGC
651 TCCACACAGA CCATTGATGT GTCAGCAGCG TTAGGTTCTT CTCTTCTTGG
701 CCTGTAGATG AAGTCATTAT GTGCCTGTGT CTCTGACCTA AGTTTCTTTC
751 CTATGAGAAT AACAGTCATA TTAGATTAGA ACCCAGTCTA ATGACCTATT
801 TCACTTACTT TAAATTTCTT ATTCATTTAT TTCAATTACT TTCATTTTAT
851 TTACTIONT TGGTACTTAG AATCAAATTC AGAGCCTTGC ACATACTTAA
901 CAAATGCTTA ATCTCTCTTT AAGACCCTCT CTCTGTGTAT GATCATCTGA
951 TGAGGTCCTG GGAATTACAG CACATGGATT CCTTTAAAC ACATCTCAAC
1001 CATACTCTT GGTAATTAAA AACATCTCTA ATTTGCTGTA ATTCACTATA
1051 ATGATATAAC AGCTATCCTG GAGTATTCCT GTGTCTAATT TCATGCTGGT
1101 AAAGCTCTGG TTATGGTACA ACAAAGATGA GGTAATTATT ACAACATCCT
1151 GCACATACTG GGGTATCTGT GGCATCCTTG GTACATCAGT CCTGAAACGA
1201 AGCCAATATC TACAGTAGCT TTGAGATGCG TAGGCGAGGG TAATTCTTTT
1251 ATGCTACTGA GGTGGTACTG TGTGGTCATT CTTTGTGATC TCCTGATGTT
1301 GCGATGCACA CCCACAAACA CACATTTGTA CACATATATT ATCATCAGG

1351 GCCATTATTA GCTCACAACA TTATCCTATC CTTCTTTTCT TCAATAACCT
1401 CTCCGAGTTT GAAGAGTCCA TGGCGATGAT TTGCGGGGTT TATACCTGTG
1451 ATTAAAGCGC ACACAAAAAA TGATATTGTG GAAAATAACA TGTCTTGTGA
1501 TCGAGCATGG CCAGCTGTAT AACTGTAAGA AGGATTAGAA CTGTGAATCA
1551 TCCTTAAGAA AAAAAAAAAA AAAAAAAAAAAG CTAAATAAAT GCAATCTGCC
1601 CAAGAGGGAG GAAATGAATA CCTATAAACC ACAACTTCTA TCCAATCACA
1651 TACAGACAAA TCAGCCTTCA GACCAATCAA ACGTCTTCAT TTAAAGCTTA
1701 CCTGGACTTG GCATACTGCC CAGCTTTTCC AAAACTACTC ACAATAATAC
1751 CTTCAACAAC AGTTAAAAAA CGCTGGTACT CAAACAAAAT CAACAGCCTT
1801 TTCAACGACT GCTTTAAAAA AGACCAAACA AACAAACAAG GAACGTCTTA
1851 ACCCAGAGAA GACAATTGCT TGGGAGAGGA AAAGTTTGCT TCTGAGTTAG
1901 CAGCCTGTGG AAACAGGATT AGTGGGTGGG ATTGGGGTGT GCTCTGCCCA
1951 TAAATACAGG CTCAGCGCTG CGCTGGCACA CTGAGAAACT TGGACGGCAA
2001 CCCTTGCGGC TCACACAAAG CAGGAGGGTG GGAAGCCCAG GTAAGGCAAT

FIG. 8